



- XY matrix
- single pole/common bus
- 2 out of 7 (or 8) coded output

choice of 1/2-inch or 3/4-inch button centers

Gryllath's 3 x 4 Keyboard Pads earned instant popularity for their positive tactile and audio feedback and performance. Now the line is broadened by the addition of a 4 x 4 Keyboard. Maintaining the same low profile, patented snap-action dome contact, and 3 million operation per button contact system life-rating. The Keyboard is loaded with logic circuitry. Total button travel of one inch. Standard post or flange mounting; top or sub panel mounting. Molded of high ABS plastic; buttons with black or white. The Keyboard is a standard, other legend options available, including clear snap-on keys for user legending. Send for complete specifications, literature, and information about our full line of keyboard products, from Gryllath, Inc., 561 Hillgrove, East Grange, Illinois 60521. (312) 354-1040



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### Line driver features three-state outputs

*Texas Instruments, P.O. Box 5012, M/S  
308 (Attn: SN75159), Dallas, TX 75222.  
Dale Pippenger (214) 238-3527. \$2.47 to  
\$2.82; stock.*

SN75159, a dual-differential line-driver IC, meeting EIA RS-422 standards, features three-state outputs and addition input logic. The three-state-output feature with individual disable controls permits connecting many devices on the same line. The outputs can neither drive nor load the bus in the disabled or high-impedance state. The outputs are capable of sinking and sourcing 40 mA with 0.25-V (low) and 3.0-V (high) levels. Transition time: 4 ns, delay time: 13 ns.

## One chip gives all CB channel frequencies

*National Semiconductor, 2900 Semiconductor Dr., Santa Clara, CA 95051. (408) 737-5000. \$7.00; stock.*

Designed DS8900, a 28-pin device is a single-chip frequency synthesizer/programmer for CB equipment. It is the equivalent of a 40-channel phase-locked loop and programmer. Also included on the chip are LED driver/decoders. Some features are: a 40-MHz input capability without using external mixers; 2-speed channel selection; mask-programmable i-f code capability; channel memory capability.

## Photodiodes detect full visible spectrum

*EMDEX, 540 New Haven Ave.,  
Milford, CT 06460. Seymor Merrin  
(203) 877-3271.*

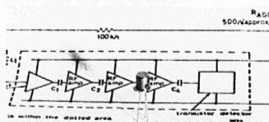
A family of enhanced-silicon photodiodes responds throughout the visible range of the spectrum. The devices will not exceed a responsivity ratio of 2.5 between 800 and 400 nm. Other characteristics are compatibility with 2 to 15-V logic high-temperature stability. The device's active areas measure 1.2 to 5.8 sq mm and the units are packaged in TO-18 and TO-5 metal cases with dual terminals.

### Sense and hold analog peak voltages

*Optical Electronics, P.O. Box 11140,  
Tucson, AZ 85734. Mrs. Mac (602)  
624-8358. \$45; stock.*

The main purpose for the 5902 IC device is to sense and hold positive analog peak voltages. The 100-ns-max acquisition time allows it to peak-sense high-speed pulse-type signals. It may also be used for envelope detection and, with the addition of one external op amp, performs dc restoration. Digital command inputs are TTL and 5-V CMOS compatible. Sensing error is  $\pm 1$ -mV max.

### Amplifier/detector tunes from 0.15 to 3 MHz



*Ferranti Electric, E. Bethpage Rd., Plainview, NY 11803. Ken Kushman (516) 293-8383. \$0.49 (1000 qty); stock to 4 wk.*

Monolithic AM/i-f amplifier/detector, type ZN414, can be tuned with external components from 150 kHz to 3 MHz. The TO-18 packaged unit operates from 1.2 to 1.6 V dc, drawing only 300  $\mu$ A. Threshold sensitivity is 50  $\mu$ V with the supply voltage at 1.3 V. Power gain is 72 dB.

## IC puts more 4-bit $\mu$ C functions on chip

*Panasonic, 1 Panasonic Way, Secaucus, NJ 07094. William Bottari (201) 348-7276. \$8.50 (1000 qty); stock to 4 wk.*

Three  $\mu$ Ps, Models MN1400, MN1402, and MN1498 built with the n-channel E/D MOS process, have a number of functions previously included in auxiliary circuitry. These include an 8-bit presettable counter-timer, a clock generator, a 1024  $\times$  8-bit-instruction ROM, 64  $\times$  4-bit RAM with four directly addressable words, I/O ports, and the arithmetic-logic unit. Depending on the model, they are available in 28, 40, or 64-pin DIPs. An "evaluator chip," Model MN1499, can perform various tests on the  $\mu$ Ps.

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